

ABSTRACT

The present invention discloses an IPS LCD device. The IPS LCD device according to the present invention implements a plurality of transparent common and pixel electrodes. Since the plurality of common and pixel electrodes are made from the transparent material on the same plane, the IPS LCD device has a high aperture ratio, a high brightness quality, and therefore a low power consumption.

In another aspect, the IPS LCD device according to the present invention implements overlapped data line and outermost common electrode. To form the overlapped data line and outermost common electrode, an organic passivation layer is used such that cross talk between the data line and the outermost common electrode is prevented. Then, because the overlapped data line and outermost common electrode serve as a black matrix such that no black matrix is needed. Therefore, an aperture ratio of the IPS LCD device is further improved.